U.S.S.N.: 10/606,469

RESPONSE TO FINAL OFFICE ACTION

Page 3 of 12

Amendments to the Claims

This listing of claims will replace all prior versions, and listing, of claims in the application.

**Listing of Claims:** 

1. (Currently Amended) A folded solar telescope suitable for safely observing an image

of the sun, the telescope comprising:

a folded telescope assembly that comprises an objective lens, at least two light folding

devices, a second lens, and a projection surface;

a telescope frame having an exterior cross-section which is a circle or polygon and in

which the telescope assembly is mounted;

a curved support device wherein the curvature of the curved support device supports the

telescope frame and permits adjustment of telescope altitude; and

a translucent screen that is structured and arranged so that an image of the sun projected

onto the translucent screen is visible from a face opposite an opposite face of the screen from the

objective lens, the at least two light folding devices, and the second lens, and wherein the image

is observable from the exterior of the telescope frame.

2. (Original) A telescope according to claim 1 wherein the light folding devices are

mirrors or prisms.

3. (Canceled)

U.S.S.N.: 10/606,469

RESPONSE TO FINAL OFFICE ACTION

Page 4 of 12

4. (Previously Presented) The folded solar telescope of claim 1 wherein the telescope

frame is supported by the telescope support device such that the center of gravity of the telescope

is unaffected by changing the elevation of the telescope.

5. (Previously Presented) A telescope according to claim 1, wherein the telescope

elevation can be varied from 0° to 90°.

6. (Previously Presented) A telescope according to claim 1, wherein the friction between

the telescope frame and the support device is sufficient to stabilize the telescope at a specified

elevation.

7. (Previously Presented) A telescope according to claim 1, wherein the shape of the

telescope frame is a regular polygon.

8. (Previously Presented) A telescope according to claim 1, wherein the shape of the

telescope frame is an equilateral triangle.

9. (Previously Presented) A telescope according to claim 7 wherein the telescope

support device comprises a curved surface on which the telescope frame is supported, the

curvature of the telescope support device surface is defined by an arc of a circle that inscribes the

polygonal shape of the telescope frame.

U.S.S.N.: 10/606,469

RESPONSE TO FINAL OFFICE ACTION

Page 5 of 12

10. (Original) A telescope support device according to claim 9 wherein the arc defining

the curvature of the telescope support device is a semicircle.

11. (Previously Presented) A telescope according to claim 4 wherein the exterior cross-

section of the telescope frame is a circle which inscribes the dimensions of the folded telescope

assembly.

12. (Original) A telescope according to claim 11 wherein the telescope support device is

a cylinder with a smaller diameter than the diameter of the cylindrical telescope frame and the

axis of the cylindrical telescope support device is perpendicular to the axis of the cylindrical

telescope frame.

13. (Previously Presented) The telescope according to claim 1, wherein the telescope

further comprises a telescope pointing system comprising one or more visual guides wherein the

visual guides are integral to the telescope such that the axis or line defined by each guide

apparatus is parallel to a line defined by the center of the objective lens and one of the light

folding devices.

U.S.S.N.: 10/606,469

RESPONSE TO FINAL OFFICE ACTION

Page 6 of 12

14. (Previously Presented) The telescope according to claim 13, wherein the pointing

system comprises a gnomon that has a long dimension oriented parallel to the rays of light that

pass through the objective lens and are folded by the light folding devices.

15. (Previously Presented) The telescope according to claim 13 wherein the pointing

system comprises:

a secondary aperture for admitting a small cross-sectional beam of light; and

a pointing target located within the telescope such that the line defined by the pointing

target and the secondary aperture is parallel to the rays of light that pass through the objective

lens and strike the first mirror or prism.

16. (Previously Presented) The telescope according to claim 13 wherein the pointing

system comprises:

a gnomon which has a long dimension oriented parallel to the rays of light that pass

through the objective lens and strike the first mirror or prism;

a secondary aperture for admitting a small cross-sectional beam of light; and

a pointing target located within the telescope such that the line defined by the pointing

target and the secondary aperture is parallel to the rays of light that pass through the objective

lens and strike the first mirror or prism.

Claims 17-20. (Canceled)

U.S.S.N.: 10/606,469

RESPONSE TO FINAL OFFICE ACTION

Page 7 of 12

21. (Currently Amended) A folded solar telescope suitable for safely observing an image

of the sun, the telescope comprising:

a folded telescope assembly that comprises two or more light folding devices, wherein the

light folding devices are mirrors or prisms;

a telescope frame having an exterior cross-section which is a circle or polygon and in

which the telescope assembly is mounted;

a curved support device wherein the curvature of the curved support device supports the

telescope frame and permits adjustment of telescope altitude; and

a translucent screen that is structured and arranged so that an image projected onto the

translucent screen is visible from a face opposite an opposite face of the screen from the

objective lens, the least two or more light folding devices, and the second lens, and wherein the

image is observable from the exterior of the telescope frame.

22. (Previously Presented) The telescope according to claim 21, wherein the telescope

further comprises a telescope pointing system comprising one or more visual guides wherein the

visual guides are integral to the telescope such that an axis or line defined by each guide

apparatus is parallel to a line defined by a center of the objective lens and one of the light folding

devices.

U.S.S.N.: 10/606,469

RESPONSE TO FINAL OFFICE ACTION

Page 8 of 12

23. (Currently Amended) The telescope according to claim 22, wherein the pointing

system comprises a gnomon that has a long dimension oriented parallel to the rays of light that

pass through the objective lens and are folded by the light folding devices.

24. (Currently Amended) A folded solar telescope suitable for safely observing an image

of the sun, the telescope comprising:

a folded telescope assembly that comprises an objective lens, at least two light folding

devices, a second lens, and a projection surface;

a telescope frame having an exterior cross-section which is a circle or polygon and in

which the telescope assembly is mounted; and

a curved support device wherein the curvature of the curved support device supports the

telescope frame and permits adjustment of telescope altitude;

wherein the at least two light folding devices and second lens are structured and arranged

so that the image of the sun is projected on an interior surface of the telescope frame, the interior

surface being an opposite face from the at least two light folding devices and the second lens, and

where the interior surface it is observable from outside the telescope frame.

25. (Currently Amended) A folded solar telescope suitable for safely observing an image

of the sun, the telescope comprising:

a folded telescope assembly that comprises an objective lens, at least two light folding

devices, a second lens, and a projection surface;

Applicant: P.M. Sadler U.S.S.N.: 10/606,469

RESPONSE TO FINAL OFFICE ACTION

Page 9 of 12

a telescope frame having an exterior cross-section which is a circle or a regular polygon and in which the telescope assembly is mounted; and

a curved support device wherein the curvature of the curved support device supports the telescope frame and permits adjustment of telescope altitude; and

wherein the shape of the telescope frame is a regular polygon.